

A1. 750

## Work Order ID 70692



Page 1

Monday, June 13, 2011 1:33:53 PM

Item ID: D3492-3

Accept



Setup Start



Revision ID:

Stop



Item Name: Plug

Start Date: 6/13/2011 Start Qty: 80.00



Cust Item ID:

Required Date: 6/20/2011 Req'd Qty: 80.00



Customer:

Reference:

Approvals:

Process Plan:

Date: 6-13-11

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr

Revision Nbr

D3492

c3D

100

0.00



Hardinge CNC LATHE SMALL

0.00

Hardinge

Memo

Hardinge CNC Lathe Small

1-Turn as per Folio FA632 &amp; Dwg D3492

Dwg Rev:

Folio Rev:

110

0.00



QC2- Inspect parts off machine FAI/FAIB

0.00

QC

Memo

Quality Control

120

0.00



QC8- Inspect parts - second check

0.00

QC

Memo

Quality Control

80

80

11-6-22

80

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

**Work Order ID 70692**

Monday, June 13, 2011 1:33:53 PM



Page 2

Item ID: D3492-3

Accept



Setup Start



Revision ID:

Stop



Item Name: Plug

Start Date: 6/13/2011 Start Qty: 80.00



Cust Item ID:

Required Date: 6/20/2011 Req'd Qty: 80.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

130



HandFinish

Chemical Conversion Coat per QSI005 4.1

0.00

Memo

0.00

Hand Finishing

80  $\phi$  PR 11-6-23.

140



Powdercoat

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

Memo

(Flat End Only)

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

2:00  
320 OF  
2:30

0.00

Powder Coating

80  $\phi$  M/L 11/06/23

150



QC

QC3- Inspect Part Finish

0.00

Memo

0.00

Quality Control

80 — PR 11-6-23.

M116964

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

**Work Order ID 70692**

Page 3

Monday, June 13, 2011 1:33:53 PM

Item ID: D3492-3

Accept



Setup Start



Revision ID:

Stop



Item Name: Plug

Start Date: 6/13/2011 Start Qty: 80.00



Cust Item ID:

Required Date: 6/20/2011 Req'd Qty: 80.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160

Identify as per dwg & Stock Location: *FP-A* 0.00

Packaging

Memo

0.00

Packaging

*80 ✓ M/L 11/06/23*

170

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

*11/6/27**ME 11-06-24*

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

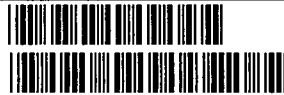
Monday, June 13, 2011 1:33:59 PM

Page 1

Work Order ID: 70692

Parent Item: D3492-3

Parent Item Name: Plug




Start Date: 6/13/2011

Required Date: 6/20/2011

Start Qty: 80.00

Required Qty: 80.00

Comments: IPP Rev:A 11.04.19 per dwg revC DD verf:EC

| Component Item ID/<br>Item Name   | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M6061T6R0.750<br> |                        | Purchased     | No          |                     |                  | 100             | f                  | 58.8030        | 0.06        | 5.052632     |               |                |        |
| 6061-T6 Round Bar .750"   |                        |               |             |                     |                  |                 |                    |                |             |              |               |                |        |



*SD 11/6/22*

| <u>Location</u>   | <u>Loc Qty</u> | <u>Loc Code</u> |
|-------------------|----------------|-----------------|
| MAT013            | 58.803         |                 |
| 112442            | 0.796          |                 |
| 116406            | 0.617          |                 |
| <del>117481</del> | 57.39          |                 |

*4-6-22*

*784*

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries





| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

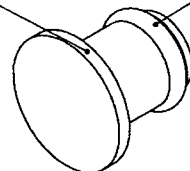
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
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| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

D3492-XX PLUG  
(SEE TABLE)

NAS1611 O-RING  
(SEE TABLE)



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 70692  
*PH 06-11*

# D3492-XXX PLUG PARTS LIST

| QTY<br>-041 | QTY<br>-043 | QTY<br>-045 | QTY<br>-047 | QTY<br>-049 | QTY<br>-051 | QTY<br>-053 | PART NUMBER | DESCRIPTION   |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|
| X           |             |             |             |             |             |             | D3492-041   | PLUG ASSEMBLY |
|             | X           |             |             |             |             |             | D3492-043   | PLUG ASSEMBLY |
|             |             | X           |             |             |             |             | D3492-045   | PLUG ASSEMBLY |
|             |             |             | X           |             |             |             | D3492-047   | PLUG ASSEMBLY |
|             |             |             |             | X           |             |             | D3492-049   | PLUG ASSEMBLY |
|             |             |             |             |             | X           |             | D3492-051   | PLUG ASSEMBLY |
|             |             |             |             |             |             | X           | D3492-053   | PLUG ASSEMBLY |
| 1           |             |             |             |             |             |             | D3492-1     | PLUG          |
|             | 1           |             |             |             |             |             | D3492-3     | PLUG          |
|             |             | 1           |             |             |             |             | D3492-5     | PLUG          |
|             |             |             | 1           |             |             |             | D3492-7     | PLUG          |
|             |             |             |             | 1           |             |             | D3492-9     | PLUG          |
|             |             |             |             |             | 1           |             | D3492-11    | PLUG          |
|             |             |             |             |             |             | 1           | D3492-13    | PLUG          |
|             |             | 1           |             |             |             |             | NAS1611-005 | O-RING        |
|             |             |             | 1           |             |             |             | NAS1611-007 | O-RING        |
| 1           |             |             |             |             |             |             | NAS1611-010 | O-RING        |
|             |             |             |             |             |             | 1           | NAS1611-012 | O-RING        |
|             | 1           |             |             |             |             |             | NAS1611-013 | O-RING        |
|             |             |             |             |             | 1           |             | NAS1611-015 | O-RING        |
|             |             |             |             | 1           |             |             | NAS1611-016 | O-RING        |

## NOTES:

1) O-RING: POSSIBLE SUPPLIER P/N: NAS1611-XXX OR PARKER 2-XXX

RELEASED  
2011-05-30  
*MM*

|            |   |   |              |
|------------|---|---|--------------|
| D          | INCORPORATED DEO D3482-C-1. SHT 2 DIM C FOR -1 WAS 0.055. (SEE CAR11-048) | AJS   | 11.05.24     |
| C          | ADD -049/-051/-053, CHANGE DRAWING FORMAT                                 | PH  | 07.10.05     |
| B          | ADD -047: UPDATE DIM A FOR -045   | PH  | 06.05.11     |
| A          | NEW ISSUE   | PH  | 06.01.04     |
| REV.       | DESCRIPTION   | BY  | DATE         |
| DESIGN     | PH  | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA   |              |
| DRAWN      | AJS   |   |              |
| CHECKED    | <i>JE</i>   | DRAWING NO.   | REV. D       |
| MFG. APPR. | <i>AD</i>   | D3492   | SHEET 1 OF 2 |
| APPROVED   | <i>AD</i>   | TITLE   | SCALE        |
| DE APPR.   | <i>AD</i>   | PLUG  | 2:1          |
| DATE       | 11.05.24  | COPYRIGHT © 2007 BY DART AEROSPACE LTD<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. |              |

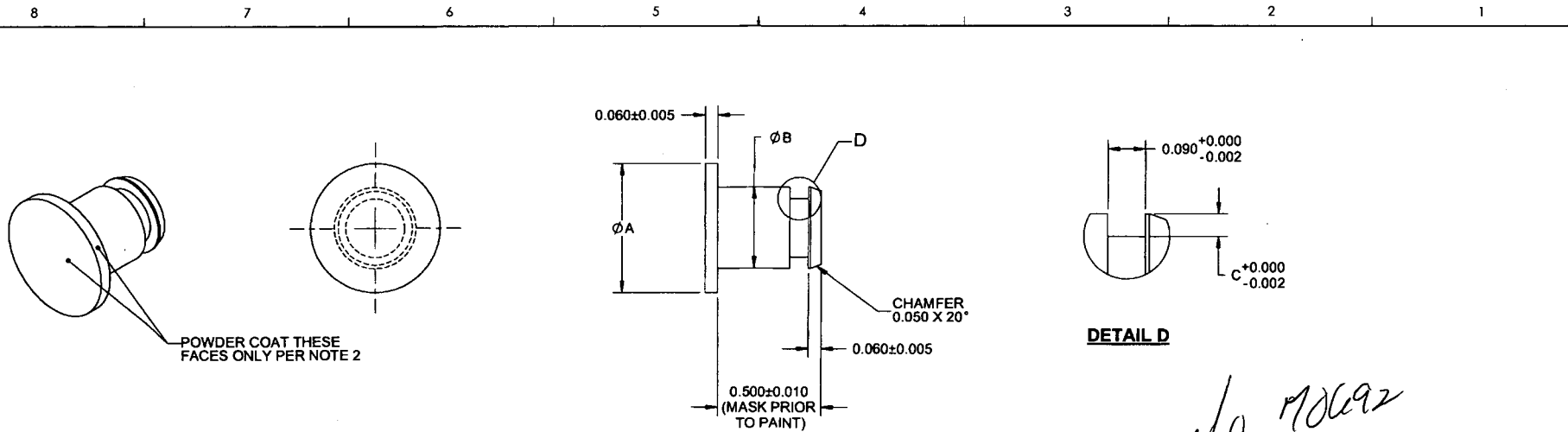
| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



**D3492-XX PLUG**

**D3492-XX PLUG MACHINING DETAILS**

| P/N      | A     | B     | C     | MATERIAL SPEC |
|----------|-------|-------|-------|---------------|
| D3492-1  | 0.625 | 0.394 | 0.050 | M6061T6R0.625 |
| D3492-3  | 0.750 | 0.582 | 0.045 | M6061T6R0.750 |
| D3492-5  | 0.375 | 0.188 | 0.045 | M6061T6R0.375 |
| D3492-7  | 0.500 | 0.270 | 0.045 | M6061T6R0.500 |
| D3492-9  | 0.938 | 0.750 | 0.045 | M6061T6R1.000 |
| D3492-11 | 0.850 | 0.664 | 0.045 | M6061T6R0.875 |
| D3492-13 | 0.750 | 0.510 | 0.045 | M6061T6R0.750 |

- NOTES:**
- 1) MATERIAL: ALUMINUM 5052-H32 OR 6061-T6 OR 1100-0 PER QQ-A-225/7 (5052) OR QQ-A-225/8 (6061) OR QQ-A-200/8 (6061) OR QQ-A-225/1 (1100) (REF. DART MATERIAL SPEC M6061T6R0.000)
  - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE GLOSS (4.3.5.1) PER DART QSI 005 4.3
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: N/A

|                      |     |  |
|----------------------|-----|--|
| DESIGN               | PH  | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA   |
| DRAWN                | AJS |  |
| CHECKED              | JES | DRAWING NO. <b>D3492</b>   |
| MFG. APPR.           |     | REV. D<br>SHEET 2 OF 2   |
| APPROVED             |     | TITLE <b>PLUG</b>  |
| DE APPR.             |     | SCALE 4:1  |
| DATE <b>11.05.24</b> |     | COPYRIGHT © 2007 BY DART AEROSPACE LTD<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. |

**RELEASED**  
2011-05-30

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
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| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

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|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries